CLAIMS

Having thus described the preferred embodiments, the invention is now claimed to be:

1. An imaging communication system **(12)** for communicating between an imaging workstation **(18)**, from which imaging protocols can be conducted and at which diagnostic images can be displayed, and one or more medical professionals, the system comprising:

a means **(50)** for selecting and addressing one or more medical professionals;

a means **(40)** for selecting electronic image representations to be sent to the one or more selected medical professionals;

a means **(46)** for formatting the at least one selected medical professional address and the selected electronic image representations into a wireless transmission format;

a plurality of remote receiving means **(62)** for receiving wireless transmissions at remote locations;

an address reading means **(68)** connected with each of the plurality of receiving means **(62)** for examining each received wireless transmission for a corresponding preselected address; and

a video processing means **(70)** connected with each remote receiving means **(62)** for, in response to the address reading means **(68)** finding the corresponding preselected address in the received wireless communication, converting an electronic image portion of the received wireless transmission into an appropriate format for human-readable display.

2. The system as set forth in claim 1, further including :

a plurality of portable units **(60)**, each unit **(60)** including a monitor means **(72)** for generating the human-readable display; and one of:

the receiving means **(62)**,

a corresponding address reading means **(68)**, and

a corresponding video processing means **(70)**.

3. The system as set forth in claim 2, wherein the portable units **(60)** include at least one of PDAs, notebook computers, and tablet personal computers.

4. The system as set forth in claim 2, wherein each portable unit **(60)** further includes:

a remote input means **(76, 78, 82)**, through which the medical professional inputs information for communication to the workstation **(18)**;

an address memory **(86)**, from which an address of at least one of the workstation and another portable unit is selectable;

a means **(88)** for formatting the address and the input information into a wireless transmission format; and

a transmitting means **(62)** for wirelessly transmitting the formatted address and information.

5. The system as set forth in claim 4, wherein the input means includes at least one of a microphone **(76)**, a touch screen **(78)**, a keypad **(82)**, and a joystick or mouse **(84)**.

6. The system as set forth in claim 4, wherein the input means includes a microphone **(76)** and the formatting means **(88)** formats audio information from the microphone **(76)** into an appropriate format for wireless transmission.

7. The system as set forth in claim 4, further including:

a receiving means **(94)** associated with the workstation **(18)** for receiving wireless communications from the portable units **(60)**;

an address reading means **(96)** for reading an address portion of the received wireless communications and determining whether the received address portions match a preselected workstation address; and

a means **(100, 98)** for converting an input information portion of the received wireless communication whose corresponding address portion matches the preselected workstation address into at least one of a human-readable and hearable format.

8. The system as set forth in claim 2, wherein the workstation **(18)** is disposed adjacent a scan room **(14)** and further including:

a diagnostic scanner **(16)** disposed in the scan room **(14)**;

a patient support **(124)** for supporting a patient in the diagnostic scanner **(16)**; and

an electronic camera **(120)** disposed in the scan room **(14)** to view the patient on the patient support **(124)**, the electronic camera **(120)** being connected with the formatting means **(46)** to format electronic pictures from the electronic camera **(120)** for wireless communication to a selected portable unit.

9. The scanner **(16)** as set forth in claim 8, further including:

an electromechanical control means **(122)** for adjusting at least one of a field of view, focus, and direction of the electronic camera **(120)**, the electromechanical control means **(122)** being connected with a receiving means **(94)** and a workstation address recognition means **(96)** to receive control signals originating with the input means **(76, 78, 82, 84)** of the portable unit **(60)**.

10. The system as set forth in claim 1, wherein the formatting means **(46)** is connected with at least one of a hospital based network **(110)**, which includes wireless transmission units **(114)** and a cell phone tower **(116)**.

11. A method of imaging communications between an imaging workstation **(18)** and one or more reviewing medical professionals, the method comprising:

selecting and addressing one or more medical professionals;

selecting electronic image representations to be sent to the one or more selected medical professionals;

formatting the at least one medical professional's address and the selected images into a wireless transmission format;

receiving wireless transmissions at remote locations;

examining each received wireless transmission for a corresponding preselected address; and

in response to finding the corresponding preselected address in the received wireless communication, converting an electronic portion of the received wireless transmission into an appropriate format for human-readable display.

12. The method as set forth in claim 11, further including:

at a first remote location, preparing instructions to an operator at the workstation and formatting the instructions and an address of the workstation into an appropriate format for wireless transmission.

13. The method as set forth in claim 12, wherein the step of preparing instructions includes at least one of touching a touch screen, using a keyboard entry, and making a spoken entry.

14. The method as set forth in claim 12, further including:

wirelessly forwarding at least the diagnostic images from the first remote location to another radiologist at another remote location; and

wirelessly sending information from the another location to at least one of the first remote location medical professional and the workstation.

15. The method as set forth in claim 11, further including:

positioning a patient in a diagnostic scanner (16);

conducting a diagnostic scan to generate diagnostic image information;

reconstructing the generated diagnostic information into diagnostic images;

displaying the generated diagnostic images; and

selecting exemplary ones of the displayed diagnostic images for incorporation into the wireless transmission.

16. The method as set forth in claim 15, further including:

holding the patient in the diagnostic scanner (16) while the diagnostic images are transferred to one of remote locations;

at the remote location, displaying the human-readable display to a medical professional; and

after analyzing the human-readable display, transmitting instructions to the workstation **(18)** to one of: (1) release the patient and (2) conduct further diagnostic scans.

17. The method as set forth in claim 15, further including:

optically imaging the patient in the diagnostic scanner to generate electronic optical images of the patient; and

formatting the electronic optical images and the selected medical professional's address into format for wireless transmission.

18. The method as set forth in claim 17, further including:

wirelessly, from the remote location, controlling a field of view of a camera which generates the electronic optical images.

19. The method as set forth in claim 12, further including:

in response to the instructions from the first remote location, wirelessly forwarding additional patient records and information to the first remote location.

20. The method as set forth in claim 12, further including:

at the first remote location, reviewing the diagnostic images and wirelessly sending an approval of the images to the workstation; and

at the workstation, releasing a patient who has been scanned.

21. The method as set forth in claim 12, further including:

at the first remote location, analyzing the diagnostic images and wirelessly transmitting instructions to the workstation for further diagnostic images; and

at the workstation, controlling a diagnostic scanner **(16)** to generate additional diagnostic images of the patient.

22. An imaging scanner communication system **(12)** comprising:

a means **(40)** for generating a patient information, the generating means **(40)** positioned in a vicinity of the scanner **(16)**;

a means **(10)** for facilitating a data transfer between an imaging scanner personnel located at the scanner vicinity and one or more hospital radiologists located at one or more remote locations;

a first means **(44)**, positioned in the scanner vicinity and coupled to the facilitating means **(10)**, for transmitting first data including the patient information from the scanner vicinity to the remote locations and receiving remote data sent from the remote locations; and

remote means **(62)**, positioned at the associated remote locations and coupled to the facilitating means **(10)**, for receiving data at the associated remote locations and transmitting remote data from the remote locations to the scanner vicinity.